NATURAL RESOURCES CONSERVATION SERVICE
Wyoming
CONSTRUCTION SPECIFICATIONS
FOR
DRY HYDRANT

(Owner/Operator)

(Project Title)

GENERAL

Installation shall be in accordance with an approved design and plan. Details of construction shown on the drawings but not included herein are considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations.

SCOPE

The work shall consist of constructing a dry hydrant and include all clearing, excavation, backfill, installation of hydrant pipe, connection and screen to the lines, grades, and elevations as specified on the drawings or staked in the field.

SITE PREPARATION

The dry hydrant access area and pipe location shall be cleared to the extent needed for pipe installation and access by fire fighting personnel and equipment. Clearing and brush removal for safe line-of-sight to the road shall be included. Clearing debris, logs, stumps, and other trash shall be burned, buried, removed from the site, or otherwise disposed of in accordance with state and local laws in a manner that does not interfere with hydrant installation or vehicle access.

EXCAVATION

Excavation for placement of the dry hydrant pipe and riser shall be done by trenching or other approved methods. Excavation should begin in the pond and proceed toward the hydrant location. Trenches having cuts greater than 5 feet shall be sloped to a stable slope above the 5 foot height or braced to avoid sidewall caving and to improve backfill compaction. Care must be taken during underwater excavation to avoid ridges and valleys in the bottom grade. The bottom grade shall have a positive slope toward the water source.

Excavation and shaping that will facilitate and enhance easy on/off road access to the dry hydrant shall be done. Such excavation and shaping shall provide a nearly level, well-drained site which will also facilitate operation and maintenance activities.

FILL PLACEMENT

If suitable, the material excavated from the pipe trench, access area shaping, or other source may be used for pipe backfill and other site filling and shaping activities. The fill material used in the trench must be free from all sod, roots, stones over two inches in diameter, frozen soil, and other objectionable material. Soil placed against plastic pipe shall be free of any isolated stones. A minimum of 2 feet of cover over the pipe is required. The soil surface shall be mounded over the pipe for settlement and to divert surface water.

Fill material above water level shall be placed in thin layers not exceeding 9 inches thick and compacted. Compaction around the pipe above water level shall be by hand tamping or by manually directed power tampers. Compaction around the pipe below water shall proceed from the embankment (from riser to intake) and shall be done by soil weight and compaction on material above the water level. Trench confinement and compaction will be done in a manner that will force excess water from the fill material. Care must be taken so that loose soil in the water will not be pushed out over the intake screen.

CONSTRUCTION MATERIALS

Pipe materials shall be of the specified type, size, and length as shown on the drawings. All pipe connections shall be air and water tight (airtight).

Pipe joint connections shall be cleaned and the appropriate cleaning and sealing material used according to manufacturer's recommendations.

The intake screen shall be supported to assure that it has a minimum of 2 feet of clearance from the pond bottom.

Connectors acceptable to and approved by the local fire department shall be used.

VEGETATIVE COVER

Unless otherwise specified, a protective cover of vegetation shall be established on the disturbed area. The planting of vegetative materials shall conform to the requirements of Practice Specification 342, Critical Area Planting.

ACCESS

Vehicle access to and from the dry hydrant shall be provided for fire truck and pumper units. Access shall have an all-weather road (gravel or paved), be well drained, and be at least 12 feet wide for ease of equipment during an emergency. When local traffic may be involved, an all weather road surface adjacent to the dry hydrant and completely off the public road is recommended for safety of emergency personnel and the public.

CONSTRUCTION OPERATIONS

Construction operations shall be done in such a manner that soil erosion and water pollution are minimized and held within legal limits. The owner, operator, Contractor or other persons will conduct all work and operations in accordance with proper safety codes for the type of construction being performed with due regards to the safety of all persons and property.

The completed job shall be workmanlike and present a good appearance.

ADDITIONAL SPECIFICATIONS